UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION VIII
999 18th STREET - SUITE 500
DENVER, COLORADO 80202-2466

Ref: 8ES-MEB

December 11, 1995

MEMORANDUM

SUBJECT: Data validation for Rico Argentine Mine Site, Case #24008, SDG # HR479

FROM: Russ Leclerc RL 12/11/95
Chemist
Program Support Group, Technical Support Team

TO: Greg Oberly
8HWM-SM

The Environmental Services Assistance Team (ESAT) has completed its review of data from the analysis of seven water samples for full Contract Laboratory Program (CLP), Routine Analytical Services (RAS) organic analyses with two additional water samples for CLP RAS volatile organic analysis for **Rico Argentine Mine Site, Case 24008**, Sample Delivery Group (SDG) **#HR479**. I have evaluated **ESAT's** data validation package and agree with ESAT's review. Data in the enclosed package are acceptable with the qualifiers added to the data reports. Please refer to the attached ICF Kaiser data validation report including the narrative summary and comments for a full explanation of the data review findings.

If you have any questions,or if I can be of further assistance, please contact me at 312-6971.

Attachments

REGION VIII
SUMMARY OF CLP DATA QUALITY ASSURANCE REVIEW
ORGANICS - VOLATILE, SEMIVOLATILE, PESTICIDE/AROCLOR

CASE NO.	SITE NAME		SITE ID/OPERABLE UNIT
24008	Rico Argentine Mine		8ZZ / 00
RPM NAME	ESAT TID: 08-9510-703		
Greg Oberley	ESAT WUD: 25		
CONTRACTOR LABORATORY	CONTRACT NO.	SDG NO.	LABORATORY TPO/REGION
RECRA Environmental	68-D5-0010	HR479	Stevie Wilding / III

Data Reviewer Anne Babyak
Review Completion Date 12/07/95

SAMPLE ID	SAMPLE LOCATION	MATRIX	DATE SAMPLED	ANALYSIS
HQ925	RA-GW-01	Water	9/14/95	CLP Full Organic Analysis
HQ928	RA-SW-93			CLP Volatile Organics Only
HQ930	RA-SW-24			CLP Full Organic Analysis
HR479	WSW-01		9/13/95	
HR480	RA-WGW-01			
HR482	RA-SW-24			
HR483	RA-SW-92			CLP Volatile Organics Analysis
HR583	RA-WGW-02			CLP Full Organic Analysis
HR584	RA-WSW-02			

DATA QUALITY STATEMENT*
( ) Data are ACCEPTABLE according to EPA Functional Guidelines with no qualifiers (flags) added by the reviewer.
( ) Data are UNACCEPTABLE according to EPA Functional Guidelines.
(X) Data are acceptable with QUALIFICATIONS noted in review.

Telephone/Communication Logs Enclosed? Yes ___ No X

TPO Attention Required? Yes ___ No X If yes, list the items that require attention:

* Please see Data Qualifier Definitions, attached to the end of this report.

Reviewed 12/11/95 ACC

REVIEW NARRATIVE SUMMARY

This data package was reviewed according to the EPA document *National Functional Guidelines for Organic Data Review*, February 1994.

Case 24008, SDG HR479, consisted of seven water samples for full CLP RAS organics analyses and two additional water samples for CLP RAS volatile organics analysis.

Samples HR482 and HR483 from this SDG and HR478 from Case 24008, SDG HR549 were the designated QC blanks. Samples were evaluated using results of these blank analyses.

The laboratory performed the required library search on all non-target sample components. All tentatively identified compounds (TICs) were qualified "NJ" - tentatively identified at an estimated concentration. TICs detected in the samples and associated blanks were qualified "R" rejected.

The following tables list all data qualifiers added to the data.

SAMPLE NUMBER	VOLATILE COMPOUND	QUALIFIER	REASON FOR QUALIFICATION	REVIEW SECTION
All	benzene, toluene, chlorobenzene, ethylbenzene, styrene, xylene (total)	UJ	Holding Time	II
HQ928, HQ930	chloroform	U	QC Blank	VIII

SAMPLE NUMBER	SEMIVOLATILE COMPOUND	QUALIFIER	REASON FOR QUALIFICATION	REVIEW SECTION
HR480RE	All	UJ	Holding Time	II
HQ925	4-methylphenol, 4-nitrophenol	UJ	Continuing Calibration	IV
HQ930, HR480, HR482, HR583, HR584	2,2'-oxybis(1-chloropropane)			
HR480, HR480RE	phenol, 2-chlorophenol, 2-methylphenol, 4-methylphenol, 2-nitrophenol, 2,4-dimethylphenol, 2,4-dichlorophenol, 4-chloro-3-methylphenol, 2,4,6-trichlorophenol, 2,4,5-trichlorophenol, 2,4-dinitrophenol, 4-nitrophenol, 4,6-dinitro-2-methylphenol, pentachlorophenol	R	Surrogate Spike Recovery	V

SAMPLE NUMBER	PESTICIDE COMPOUND	QUALIFIER	REASON FOR QUALIFICATION	REVIEW SECTION
HR480	heptachlor epoxide	NJ	Sample Results	VIII

SOW Number OLM03.0
Revision OLM03.1 **RAS ORGANIC DATA COMPLETENESS CHECKLIST**
VOLATILE

Quality Control Summary Package
- P Surrogate Recovery Summary (Form II)
- P MS/MSD Summary (Form III)
- P Method Blank Summary (Form IV)
- P GC/MS Tuning and Mass Calibration (Form V)

Sample Data Package
- P Holding Times (SMO Sample Traffic Reports)
- P Organic Analysis Data Sheets (Form I)
- P Reconstructed Ion Chromatogram(s) (RIC)
- P Quantitation Reports
- P Mass Spectral Data
- P EPA/NIH Mass Spectral Library Search for TICs

Standards Data Package
- NR Current List of Laboratory/Instrument Detection Limits
- P Initial Calibration Data (Form VI) for each instrument
- P Continuing Calibration Data (Form VII) for each instrument
- P Internal Standard Area Summary (Form VIII)
- P Volatile Standards RICs
- P Volatile Standards Quantitation Reports

Raw QC Package
- P BFB mass spectra and mass listings

Reagent Blank data
- P Organic Analysis Data Sheets (Form I)
- P RIC or Total Ion Chromatogram
- P Quantitation Reports
- P Mass Spectral Data
- P EPA/NIH Library Search for TICs

Matrix Spike/Matrix Spike Duplicate Data
- P Organic Analysis Data Sheets
- P RIC
- P Quantitation Reports
- NR Mass Spectral Data
- NR EPA/NIH Library search for TICs

KEY: P = Provided in original data package, as required by the SOW
R = Provided as Resubmission
NP = Not provided in original data package or as resubmission
NR = Not required under the SOW
NA = Not applicable to this data package or analysis

I. **DELIVERABLES**

All deliverables were present as specified in the statement of work.

VOLATILE: Yes _X_ No ___

Comments: None.

II. **HOLDING TIMES**

All **CLP-SOW** holding times were met.

VOLATILE: Yes _X_ No ___

Comments: There was no notation in the "preservative" column on the chains-of-custody for samples HQ925, HQ928, or HQ930. There was a notation, "No temp blank. Ice intact." It was assumed that samples were iced only. No qualifiers were added to the data.

All **technical** holding times were met.

VOLATILE: Yes ___ No _X_

Comments: All samples were analyzed for volatiles outside the holding time of seven days for aromatic compounds. Sample results were qualified as listed in the table below.

SAMPLE NUMBER	DAYS OUTSIDE LIMITS	COMPOUNDS	QUALIFIERS
HQ925, HQ928, HQ930	3	benzene, toluene, chlorobenzene, ethylbenzene, styrene, xylene (total)	UJ
HR479, HR480, HR482, HR483, HR583, HR584	4		

Comments: There was no notation in the "preservative" column on the chains-of-custody for samples HQ925, HQ928, or HQ930. There was a notation, "No temp blank. Ice intact." It was assumed that samples were iced only. No additional qualifiers were added to the data.

III. **BFB PERFORMANCE RESULTS**

The BFB performance results were within the specified control limits. All appropriate BFB results were included.

VOLATILE: Yes _X_ No ___

Comments: None.

IV. **INSTRUMENT CALIBRATIONS: INITIAL AND CONTINUING STANDARDS**

Initial instrument calibrations were performed according to SOW requirements and met the specified control limits listed in the functional guidelines.

VOLATILE: Yes _X_ No ___

Comments: None.

Continuing instrument calibration was performed according to SOW requirements and met specified control limits listed in the functional guidelines.

VOLATILE: Yes _X_ No ___

Comments: None.

V. **SURROGATE COMPOUND RECOVERY**

Surrogate compound recovery analysis was performed according to SOW requirements and results met specified control limits.

VOLATILE: Yes _X_ No ___

Comments: None.

VI. **MATRIX SPIKE/MATRIX SPIKE DUPLICATE**

Matrix Spike/Matrix Spike Duplicate analysis was performed according to SOW requirements and results met recommended recovery and precision limits.

VOLATILE: Yes _X_ No ___

Comments: None.

VII. **INTERNAL STANDARD AREA**

Internal standard area analysis was performed according to SOW requirements and results met specified control limits.

VOLATILE: Yes _X_ No ___

Comments: None.

VIII. **LABORATORY BLANK ANALYSIS RESULTS**

The laboratory blank analysis was performed according to SOW requirements and met specified control limits.

VOLATILE: Yes ___ No _X_

Comments: No target analytes or TICs were detected in the volatile method blanks or storage blank.

Comments: Samples HR482 and HR483 from this SDG, and sample HR478 from Case 24008, SDG HR549, were the designated QC blanks for this SDG. Chloroform was detected in all three QC blanks. Quantitation limits in the associated samples were raised in accordance with the rules set forth in the EPA document *National Functional Guidelines for Organic Data Review*, February 1994.

BLANK ID	DATE SAMPLED	CONTAMINANT	CONC FOUND IN BLANK	SAMPLE CRQL	ASSOCIATED SAMPLES	CONC FOUND IN SAMPLE	QUALIFIER/ ADJUSTMENT
HR482 (QC blank)	09/13/95	chloroform	25 µg/L	10	HQ928 HQ930	26 µg/L 24 µg/L	U
HR483 (QC blank)			28 µg/L				
HR478 (QC blank)			26 µg/L				

IX. **SAMPLE RESULTS**

The sample results were reviewed and all compound identifications were acceptable and met SOW requirements.

VOLATILE: Yes _X_ No ___

Comments: None.

X. **Additional Comments or Problems/Resolutions not addressed above.**

VOLATILE: None.

ORGANIC RAS SEMIVOLATILE DATA QUALITY ASSURANCE REVIEW

SOW Number OLM03.0
Revision OLM03.1 **RAS ORGANIC DATA COMPLETENESS CHECKLIST**
SEMIVOLATILE

Quality Control Summary Package
- P Surrogate Recovery Summary (Form II)
- P MS/MSD Summary (Form III)
- P Method Blank Summary (Form IV)
- P GC/MS Tuning and Mass Calibration (Form V)

Sample Data Package
- P Holding Times (SMO Sample Traffic Reports)
- P Organic Analysis Data Sheets (Form I)
- P Reconstructed Ion Chromatogram(s) (RIC)
- P Quantitation Reports
- P Mass Spectral Data
- P EPA/NIH Mass Spectral Library Search for TICs

Standards Data Package
- NR Current List of Laboratory/Instrument Detection Limits
- P Initial Calibration Data (Form VI) for each instrument
- P Continuing Calibration Data (Form VII) for each instrument
- P Internal Standard Area Summary (Form VIII)
- P Semivolatile Standards RICs
- P Semivolatile Standards Quantitation Reports

Raw QC Package
- P DFTPP mass spectra and mass listings

Reagent Blank data
- P Organic Analysis Data Sheets (Form I)
- P RIC or Total Ion Chromatogram
- P Quantitation Reports
- P Mass Spectral Data
- P EPA/NIH Library Search for TICs

Matrix Spike/Matrix Spike Duplicate Data
- P Organic Analysis Data Sheets
- P RIC
- P Quantitation Reports
- NR Mass Spectral Data
- NR EPA/NIH Library search for TICs

KEY: P = Provided in original data package, as required by the SOW
R = Provided as Resubmission
NP = Not provided in original data package or as resubmission
NR = Not required under the SOW
NA = Not applicable to this data package or analysis

ORGANIC RAS SEMIVOLATILE DATA QUALITY ASSURANCE REVIEW

I. **DELIVERABLES**

All deliverables were present as specified in the statement of work.

SEMIVOLATILE: Yes _X_ No ___

Comments: None.

II. **HOLDING TIMES**

All **CLP-SOW** holding times were met.

SEMIVOLATILE: Yes _X_ No ___

Comments: There was no notation in the "preservative" column on the chains-of-custody for samples HQ925, HQ928, or HQ930. There was a notation, "No temp blank. Ice intact." It was assumed that samples were iced only. No qualifiers were added to the data.

All **technical** holding times were met.

SEMIVOLATILE: Yes ___ No _X_

Comments: Sample HR480RE was re-extracted outside the technical holding time. Sample results were qualified as listed in the table below.

SAMPLE NUMBER	DAYS OUTSIDE LIMITS	COMPOUNDS	QUALIFIERS
HR480RE	1	All	UJ

Comments: There was no notation in the "preservative" column on the chains-of-custody for samples HQ925, HQ928, or HQ930. There was a notation, "No temp blank. Ice intact." It was assumed that samples were iced only. No additional qualifiers were added to the data.

III. **DFTPP PERFORMANCE RESULTS**

The DFTPP performance results were within the specified control limits. All appropriate DFTPP results were included.

SEMIVOLATILE: Yes _X_ No ___

Comments: None.

ORGANIC RAS SEMIVOLATILE DATA QUALITY ASSURANCE REVIEW

IV. **INSTRUMENT CALIBRATIONS: INITIAL AND CONTINUING STANDARDS**

Initial instrument calibrations were performed according to SOW requirements and met the specified control limits listed in the functional guidelines.

SEMIVOLATILE: Yes _X_ No ___

Comments: None.

Continuing instrument calibration was performed according to SOW requirements and met specified control limits listed in the functional guidelines.

SEMIVOLATILE: Yes ___ No _X_

Comments: The laboratory met the SOW requirements. However, when compared to the initial calibration, three compounds were outside control limits of less than 25 percent difference (%D) for the continuing calibration. Listed below are the compounds, %D, associated samples, and qualifiers added to the data.

COMPOUND	%DIFFERENCE	ASSOCIATED SAMPLES	QUALIFIERS
4-methylphenol	26.1	HQ925	UJ
4-nitrophenol	-32.0		
2,2'-oxybis(1-chloropropane)	31.9	HQ930, HR480, HR482, HR583, HR584	

V. **SURROGATE COMPOUND RECOVERY**

Surrogate compound recovery analysis was performed according to SOW requirements and results met specified control limits.

SEMIVOLATILE: Yes ___ No _X_

Comments: Four samples were outside control limits for percent surrogate recovery. Listed below are the sample numbers, surrogate compounds, quality control limits for surrogate recovery (%R), and the qualifiers added to the data. The similar results for sqamples HR480 and HR480RE suggest the possibility of a matrix effect.

ORGANIC RAS SEMIVOLATILE DATA QUALITY ASSURANCE REVIEW

SAMPLE NUMBER	SURROGATE COMPOUND	%R	QC LIMITS	ASSOCIATED COMPOUNDS	QUALIFIERS
HR480	phenol-D_5	0	10 - 110	phenol, 2-chlorophenol, 2-methylphenol, 4-methylphenol, 2-nitrophenol, 2,4-dimethylphenol, 2,4-dichlorophenol, 4-chloro-3-methylphenol, 2,4,6-trichlorophenol, 2,4,5-trichlorophenol, 2,4-dinitrophenol, 4-nitrophenol, 4,6-dinitro-2-methylphenol, pentachlorophenol	R
	2-fluorophenol	0	21 - 110		
	2,4,6-tribromophenol	3	10 - 123		
	2-chlorophenol-D_4	2	33 - 110 (advisory)		None
HR480RE	phenol-D_5	2	10 - 110		R
	2-fluorophenol	2	21 - 110		
	2,4,6-tribromophenol	8	10 - 123		
	2-chlorophenol-D_4	4	33 - 110 (advisory)		None
HR479	2-fluorophenol	10	21 - 110	None *	None *
	2-chlorophenol-D_4	18	33 - 110 (advisory)		
HR584	terphenyl-D_{14}	144	33 - 141	None *	None *

* Samples are not qualified if only one non-advisory surrogate per fraction is outside QC limits.

VI. **MATRIX SPIKE/MATRIX SPIKE DUPLICATE**

Matrix Spike/Matrix Spike Duplicate analysis was performed according to SOW requirements and results met recommended recovery and precision limits.

SEMIVOLATILE: Yes _X_ No ___

Comments: Sample HQ925 was designated for matrix spike/matrix spike duplicate analysis. One compound was out of QC limits for MSD percent recovery. The compound was not detected in the unspiked analysis of the sample. No qualifiers were added to the data.

COMPOUND	%R MS	%R MSD	CONTROL LIMITS
4-nitrophenol	77	84 *	10-80

* Value is outside quality control limits.

VII. **INTERNAL STANDARD AREA**

Internal standard area analysis was performed according to SOW requirements and results met specified control limits.

SEMIVOLATILE: Yes _X_ No ___

Comments: None.

VIII. **LABORATORY BLANK ANALYSIS RESULTS**

The laboratory blank analysis was performed according to SOW requirements and met specified control limits.

SEMIVOLATILE: Yes _X_ No ___

Comments: No target analytes were detected in the semivolatile extraction blanks.

Comments: Sample HR482 in this SDG was the designated QC blank. No target analytes or TICs were detected in the QC blank.

Comments: One tentatively identified compound (TIC) was found in one semivolatile extraction blank. All TICs in the associated samples were previously qualified "NJ" - estimated tentatively identified compounds in the Review Summary. The following table lists blank results, associated samples and qualifiers added to the data.

BLANK ID	DATE	TIC RETENTION TIME	ASSOCIATED SAMPLES	QUALIFIERS
SBLK3	09/20/95	14.05	HR479	R

IX. **SAMPLE RESULTS**

The sample results were reviewed and all compound identifications were acceptable and met SOW requirements.

SEMIVOLATILE: Yes _X_ No ___

Comments: Sample HR480 required re-extraction and analysis due to poor surrogate recoveries. Surrogate recoveries in the re-extraction were similarly poor. All acid compounds in HR480 and HR480RE were qualified rejected "R". No target analytes were detected in either sample. Results from HR480 should be used, as results from HR480RE were all qualified "R" due to poor surrogate recoveries or "UJ" due to holding time violation.

X. **Additional Comments or Problems/Resolutions not addressed above.**

SEMIVOLATILE: None.

ORGANIC RAS PESTICIDE/AROCLOR DATA QUALITY ASSURANCE REVIEW

SOW Number OLM03.0
Revision OLM03.1 **RAS ORGANIC DATA COMPLETENESS CHECKLIST**

PESTICIDE/AROCLOR

Quality Control Summary Package

P Surrogate Recovery Summary (Form II)
P MS/MSD Summary (Form III)
P Method Blank Summary (Form IV)
NA GC/MS Tuning and Mass Calibration (Form V)

Sample Data Package

P Holding Times (SMO Sample Traffic Reports)
P Organic Analysis Data Sheets (Form I)
P GC/EC Chromatograms
P Pesticide Identification Summary for Single Component Analytes (Form X-1) -for positive results only
NA Pesticide Identification Summary for Multicomponent Analytes (Form X-2) -for positive results only

Standards Data Package

NR Current List of Laboratory/Instrument Detection Limits
P Pesticide Initial Calibration of Single Component Analytes (Form VI-1,2)
P Pesticide Initial Calibration of Multicomponent Analytes (Form VI-3)
P Pesticide Analyte Resolution Summary (Form VI-4,5,6,7)
P Pesticide Calibration Verification Summary (Form VII-1,2)
P Pesticide Analytical Sequence (Form VIII)
P Pesticide Florisil Cartridge Check (Form IX-1)
NA Pesticide GPC Calibration (Form IX-2)
P Pesticide/Aroclor Standard Chromatograms and Data System Printouts

Reagent Blank data

P Organic Analysis Data Sheets (Form I)
P GC/EC Chromatograms and Data System Printouts

Matrix Spike/Matrix Spike Duplicate Data

P Organic Analysis Data Sheets
P GC/EC Chromatograms and Data System Printouts

KEY: P = Provided in original data package, as required by the SOW
R = Provided as Resubmission
NP = Not provided in original data package or as resubmission
NR = Not required under the SOW
NA = Not applicable to this data package or analysis

ORGANIC RAS PESTICIDE/AROCLOR DATA QUALITY ASSURANCE REVIEW

I. **DELIVERABLES**

All deliverables were present as specified in the statement of work.

PESTICIDE/AROCLOR: Yes _X_ No ___

Comments: None.

II. **HOLDING TIMES**

All **CLP-SOW** holding times were met.

PESTICIDE/AROCLOR: Yes _X_ No ___

Comments: There was no notation in the "preservative" column on the chains-of-custody for samples HQ925, HQ928, or HQ930. There was a notation, "No temp blank. Ice intact." It was assumed that samples were iced only. No qualifiers were added to the data.

All **technical** holding times were met.

PESTICIDE/AROCLOR: Yes _X_ No ___

Comments: There was no notation in the "preservative" column on the chains-of-custody for samples HQ925, HQ928, or HQ930. There was a notation, "No temp blank. Ice intact." It was assumed that samples were iced only. No qualifiers were added to the data.

III. **SURROGATE COMPOUND RECOVERY**

Surrogate compound recovery analysis was performed according to SOW requirements and results met specified control limits.

PESTICIDE/AROCLOR: Yes _X_ No ___

Comments: None.

IV. **MATRIX SPIKE/MATRIX SPIKE DUPLICATE**

Matrix Spike/Matrix Spike Duplicate analysis was performed according to SOW requirements and results met recommended recovery and precision limits.

PESTICIDE/AROCLOR: Yes _X_ No ___

Comments: None.

ORGANIC RAS PESTICIDE/AROCLOR DATA QUALITY ASSURANCE REVIEW

V. **INTERNAL STANDARD AREA**

Internal standard area analysis was performed according to SOW requirements and results met specified control limits.

PESTICIDE/AROCLOR: Yes ___ No ___ N/A _X_

Comments: None.

VI. **PESTICIDE / AROCLOR STANDARDS CRITERIA**

The pesticide resolution check mixture analysis was performed according to SOW requirements and results met recommended recovery limits.

PESTICIDE/AROCLOR: Yes _X_ No ___

Comments: None.

The pesticide performance evaluation mixture analysis was performed according to SOW requirements and results met recommended recovery limits.

PESTICIDE/AROCLOR: Yes _X_ No ___

Comments: None.

The breakdown of 4,4'DDT and of Endrin was less than 20% and the combined breakdown was less than 30%.

PESTICIDE/AROCLOR: Yes _X_ No ___

Comments: None.

The decachlorobiphenyl (DCB) and tetrachloro-m-xylene (TCX) retention time shifts were within the specified control limits.

PESTICIDE/AROCLOR: Yes _X_ No ___

Comments: None.

In the initial calibration, the single component pesticides showed a percent difference of no more than 20% relative standard deviation (RSD) (no more than 25% RSD for alpha-BHC and delta-BHC) on both columns.

PESTICIDE/AROCLOR: Yes _X_ No ___

Comments: None.

In the continuing calibrations, the single component pesticides showed a percent difference (%D) of no more than 25% on both columns.

PESTICIDE/AROCLOR: Yes _X_ No ___

Comments: None.

The multi-component target compound analyses were performed according to SOW requirements.

PESTICIDE/AROCLOR: Yes _X_ No ___

Comments: None.

The florisil cartridge lot check analysis was performed according to requirements and all spike compounds were within the specified quality control limits.

PESTICIDE/AROCLOR: Yes _X_ No ___

Comments: None.

The gel permeation chromatography (GPC) check was performed according to requirements and all spike compounds were within the specified quality control limits.

PESTICIDE/AROCLOR: Yes ___ No ___ N/A _X_

Comments: None.

VII. LABORATORY BLANK ANALYSIS RESULTS

The laboratory blank analysis was performed according to SOW requirements and met specified control limits.

PESTICIDE/AROCLOR: Yes _X_ No ___

Comments: No target analytes were detected in the extraction blank.

Comments: The instrument blank results were reviewed and met SOW requirements.

Comments: Sample HR482 was the designated QC blank for this SDG. No target analytes were detected in this blank.

VIII. SAMPLE RESULTS

The sample results were reviewed and all compound identifications were acceptable and met SOW requirements.

PESTICIDE/AROCLOR: Yes _X_ No ___

Comments: The percent difference (%D) between the dual column quantitation of one positive result was greater than 25%. The laboratory correctly reported the smaller concentration of the two quantitated concentrations and flagged the results "P" as required by the SOW. Alternative analysis may be necessary to confirm peak identity for compounds with a significantly large dual column quantitation percent difference. The following table summarizes sample results.

SAMPLE NUMBER	COMPOUND	PERCENT DIFFERENCE	QUALIFIER
HR480	heptachlor epoxide	999.9	NJ

IX. **Additional Comments or Problems/Resolutions not addressed above.**

PESTICIDE/AROCLOR: None.

REGION VIII

DATA QUALIFIER DEFINITIONS

For the purpose of Data Validation, the following code letters and associated definitions are provided for use by the data validator to summarize the data quality.

GENERAL QUALIFIERS for use with ORGANIC DATA

R - Reported value is "rejected". Resampling or reanalysis may be necessary to verify the presence or absence of the compound.

J - The associated numerical value is an estimated quantity because the Quality Control criteria were not met.

U J - The reported quantitation limit is estimated because Quality Control criteria were not met. Compound was not detected.

N J - Estimated value of a tentatively identified compound.

TARGET SHEET

EPA REGION VIII

SUPERFUND DOCUMENT MANAGEMENT SYSTEM

DOCUMENT NUMBER: 374984

SITE NAME: RICO ARGENTINE/RICO POND

DOCUMENT DATE: 12/11/1995

DOCUMENT NOT SCANNED

Due to one of the following reasons:

- ☐ PHOTOGRAPHS
- ☐ 3-DIMENSIONAL
- ☐ OVERSIZED
- ☐ AUDIO/VISUAL
- ☐ PERMANENTLY BOUND DOCUMENTS
- ☐ POOR LEGIBILITY
- ☐ OTHER
- ☐ NOT AVAILABLE
- ☑ TYPES OF DOCUMENTS NOT TO BE SCANNED
  (Data Packages, Data Validation, Sampling Data, CBI, Chain of Custody)

DOCUMENT DESCRIPTION:

VOLATILE ORGANICS ANALYSIS DATA SHEETS
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEETS
PESTICIDE ORGANICS ANALYSIS DATA SHEETS

Contact the Superfund Records Center to view available document.
(303) 312-6473